

The *other* extensions

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The “Semantic Bundle”

A set of extensions, based around Semantic MediaWiki, that can be downloaded together.

Maintained by Yaron Koren & Jeroen De Dauw.

SB holds a curated set of tools representing our philosophy about the best way to store structured data via SMW.

See http://www.mediawiki.org/wiki/Semantic_Bundle

Extensions in Semantic Bundle

Non-semantic:

Admin Links, Approved Revs, Arrays, Data Transfer, External Data, Header Tabs, Maps, Page Schemas, Replace Text, Validator, Widgets

Semantic:

Semantic MediaWiki, **Semantic Compound Queries, Semantic Drilldown, Semantic Forms, Semantic Forms Inputs**, Semantic Image Input, Semantic Internal Objects, **Semantic Maps, Semantic Result Formats**, Semantic Tasks, **Semantic Watchlist**

Bold = covered in this tutorial

Semantic Forms

Allows for making forms for creating and editing template-based wiki pages. Each form is defined by a wiki page, within the “Form:” namespace.

Forms can also be used to run search queries.

Semantic Forms: features

Features include:

- many input types (text, textarea, dropdown, radio button, checkboxes, listbox, combo box, date field)
- autocompletion (single and multiple values)
- other extensions can define additional input types (Semantic Maps defines a map-based input)
- field validation (mandatory fields, etc.)

Semantic Forms

Demo time!

Semantic Forms Inputs

Defines additional input types: **datepicker**, **datetimepicker** (Javascript-based), **regexp** (allows custom validation), **menuselect**, **two infoboxes**

Semantic Drilldown

Provides a drill-down interface for SMW data.

Semantic Drilldown

Choose a category:

[Images \(2470\)](#)

[Programmes \(2896\)](#)

[Schedules \(34\)](#)

[Subjects \(13\)](#)

Programmes

Click on one or more items below to narrow your results.

▼ DECADE:

[1920s \(69\)](#) · [1930s \(115\)](#) · [1940s \(87\)](#) · [1950s \(127\)](#) · [1960s \(399\)](#) · [1970s \(582\)](#) · [1980s \(905\)](#) · [1990s \(884\)](#) · [2000s \(708\)](#) · [2010s \(204\)](#)

▼ CURRICULUM AREA:

[Art \(54\)](#) · [Citizenship \(779\)](#) · [English \(408\)](#) · [Geography \(219\)](#) · [History \(247\)](#) · [Languages \(253\)](#) · [Mathematics \(110\)](#) · [Miscellany \(247\)](#) · [Movement \(59\)](#) · [Music \(130\)](#) · [Religion \(88\)](#) · [Science \(272\)](#) · [Teachers \(24\)](#)

▼ AGE RANGE:

[Age 11-13 \(645\)](#) · [Age 13-16 \(1278\)](#) · [Age 16-19 \(457\)](#) · [Age 3-5 \(63\)](#) · [Age 5-7 \(224\)](#) · [Age 7-9 \(425\)](#) · [Age 9-11 \(611\)](#)

▼ BROADCASTER:

[BBC Schools Radio \(1058\)](#) · [BBC Schools TV \(1074\)](#) · [Channel 4 Schools \(341\)](#) · [ITV Schools \(429\)](#) · [S4C Ysgolion \(8\)](#) · [Teachers' TV \(20\)](#)


▼ COMPANY:

[123 Productions \(1\)](#) · [ABC \(2\)](#) · [APT Film and Television \(1\)](#) · [ASA Productions UK \(1\)](#) · [ATV \(39\)](#) · [Actorshop Productions \(1\)](#) · [Agency for Instructional Technology \(1\)](#) · [Angel Eye Media \(1\)](#) · [Anglia \(3\)](#) · [Ash Films \(1\)](#) · [Associated-Rediffusion \(71\)](#) · [Atlas Adventures \(1\)](#) · [Available Light \(7\)](#) · [BBC \(1621\)](#) · [BBC Northern Ireland \(3\)](#) · [BBC Scotland \(12\)](#) · [BBC Wales \(15\)](#) · [Black Diamond Films \(1\)](#) · [Blakeway Productions \(2\)](#) · [British Council \(1\)](#) · [Brook Lapping \(7\)](#) · [CETO \(1\)](#) · [Caledonia Sterne & Wyld \(1\)](#) · [Case Television \(5\)](#) · [Central \(18\)](#) · [Channel \(1\)](#) · [Chapman Clarke Films \(1\)](#) · [Children's Company \(1\)](#) · [Children's Television Workshop \(4\)](#) · [Childsplay \(1\)](#) · [Clark Television \(1\)](#) · [Class \(1\)](#) · [Cornucopia Productions \(2\)](#) · [Dark Horse \(1\)](#) · [Decode Entertainment \(1\)](#) · [Discovery Channel \(1\)](#) · [Diverse \(1\)](#) ·

Semantic Drilldown (after click)

Choose a category:

[Images \(2470\)](#) [Programmes \(2896\)](#) [Schedules \(34\)](#) [Subjects \(13\)](#)

Programmes > Decade: 1980s 

Click on one or more items below to narrow your results.

► **DECADE:** (click arrow to add another value)

▼ **CURRICULUM AREA:**

[Art \(9\)](#) · [Citizenship \(272\)](#) · [English \(133\)](#) · [Geography \(69\)](#) · [History \(66\)](#) · [Languages \(79\)](#) · [Mathematics \(32\)](#) · [Miscellany \(79\)](#) · [Movement \(17\)](#) · [Music \(35\)](#) · [Religion \(24\)](#) · [Science \(83\)](#) · [Teachers \(5\)](#)

▼ **AGE RANGE:**

[Age 11-13 \(197\)](#) · [Age 13-16 \(441\)](#) · [Age 16-19 \(122\)](#) · [Age 3-5 \(15\)](#) · [Age 5-7 \(53\)](#) · [Age 7-9 \(92\)](#) · [Age 9-11 \(152\)](#)

▼ **BROADCASTER:**

[BBC Schools Radio \(422\)](#) · [BBC Schools TV \(330\)](#) · [Channel 4 Schools \(11\)](#) · [ITV Schools \(153\)](#) · [S4C Ysgolion \(1\)](#)

▼ **COMPANY:**

[ATV \(13\)](#) · [Anglia \(2\)](#) · [Ash Films \(1\)](#) · [Associated-Rediffusion \(2\)](#) · [BBC \(742\)](#) · [BBC Wales \(1\)](#) · [Central \(14\)](#) · [Childsplay \(1\)](#) · [Ffilmiau'r Nant \(1\)](#) · [Grampian \(10\)](#) · [Granada \(26\)](#) · [HTV \(19\)](#) · [KCET \(1\)](#) · [Lodestar \(1\)](#) · [Opus 30 \(1\)](#) · [SFTV \(3\)](#) · [Scottish \(8\)](#) · [TSW \(1\)](#) · [Television Techniques \(1\)](#) · [Thames \(32\)](#) · [Ulster \(7\)](#) · [Yorkshire \(27\)](#) · [independent companies \(11\)](#)

▼ **PRESENTED IN LANGUAGE:**

[In Bengali \(1\)](#) · [In British Sign Language \(1\)](#) · [In Cantonese \(1\)](#) · [In Cornish \(1\)](#) · [In English \(793\)](#) · [In French \(34\)](#) · [In German \(16\)](#) · [In Greek \(1\)](#) · [In Gujarati \(1\)](#) · [In Irish Gaelic \(2\)](#) · [In Italian \(5\)](#) · [In Klaptonian \(1\)](#) · [In Punjabi \(1\)](#) · [In Russian \(3\)](#) · [In Scottish Gaelic \(9\)](#) · [In Spanish \(9\)](#) · [In Turkish \(1\)](#) · [In Urdu \(1\)](#) · [In Welsh \(43\)](#)

Page Schemas

Let users define an XML “schema” for each category – from this schema, properties, templates, forms and drilldown filters can be generated.

The schema can then be re-edited.

Page Schemas

☒ **Form**

Name:

☒ Users must enter the page name before getting to the form (default)

Title of form for new pages:

Title of form for existing pages:

Template

Name:

☐ Allow multiple instances of this template

☐ Details for template in form

☐ Internal property

Field

Name: Display label:

☒ This field can hold a list of values

Delimiter for values (default is ","):

☒ Display this field always ☐ Display if not empty ☐ Hide

☒ **Semantic property**

Name (leave blank to set to field name): Type:

If you want this property to only be allowed to have certain values, enter the list of allowed values, separated by commas (if a value contains a comma, replace it with "\,"):

☒ **Form input**

Input type (leave blank to set to default):

Enter parameter names and their values as key=value pairs, separated by commas (if a value contains a comma, replace it with "\,"). For example: size=20, mandatory

☒ **Filter**

Name (leave blank to set to field name):

Values

☒ Use all values of this property for the filter

How useful is Page Schemas?

Makes it easy to create and maintain a data structure,
but not very flexible in defining visual layout.



Somewhere between a toy and an excellent tool.

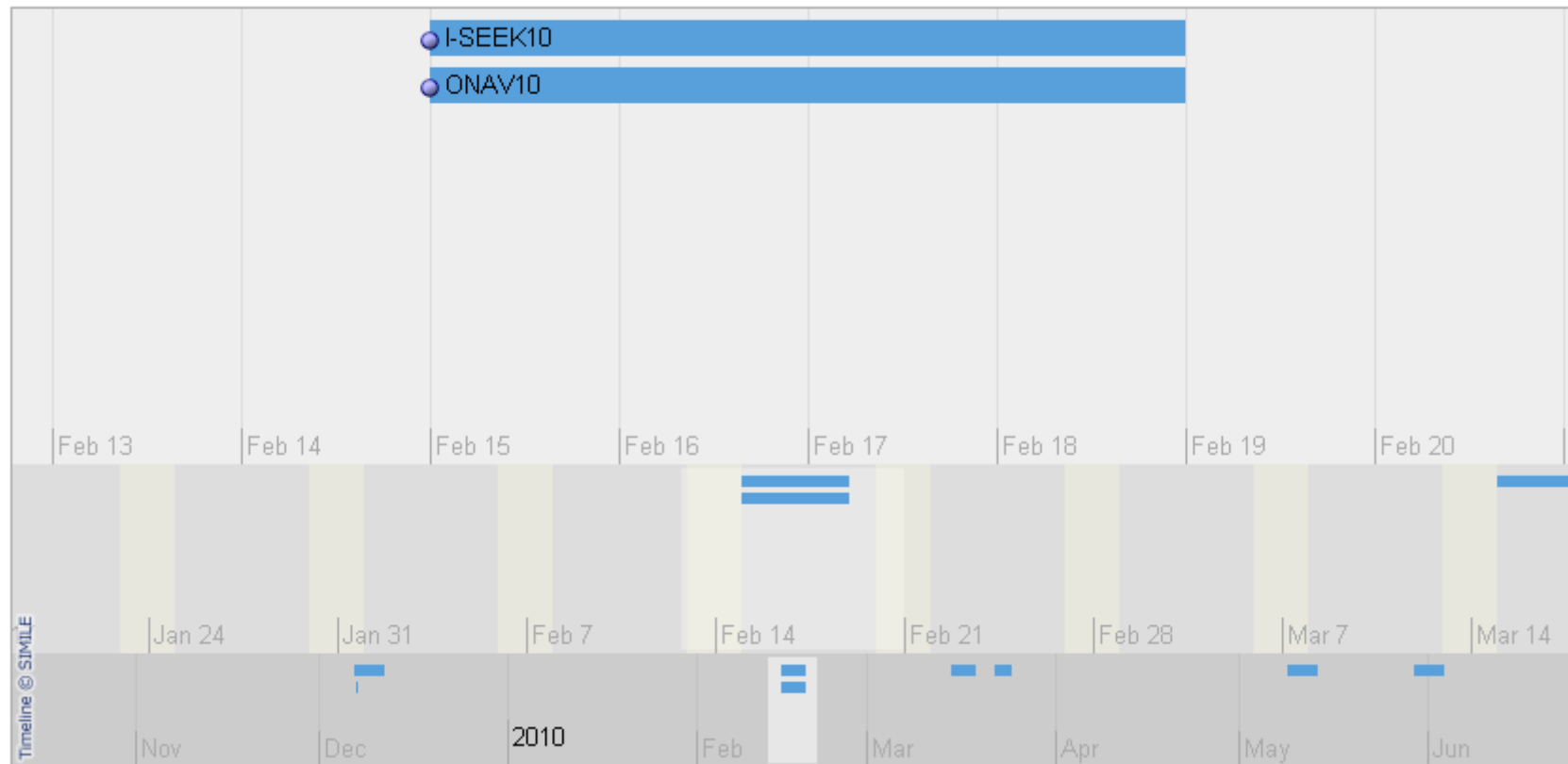
Let's create some data
structures!

Semantic Result Formats

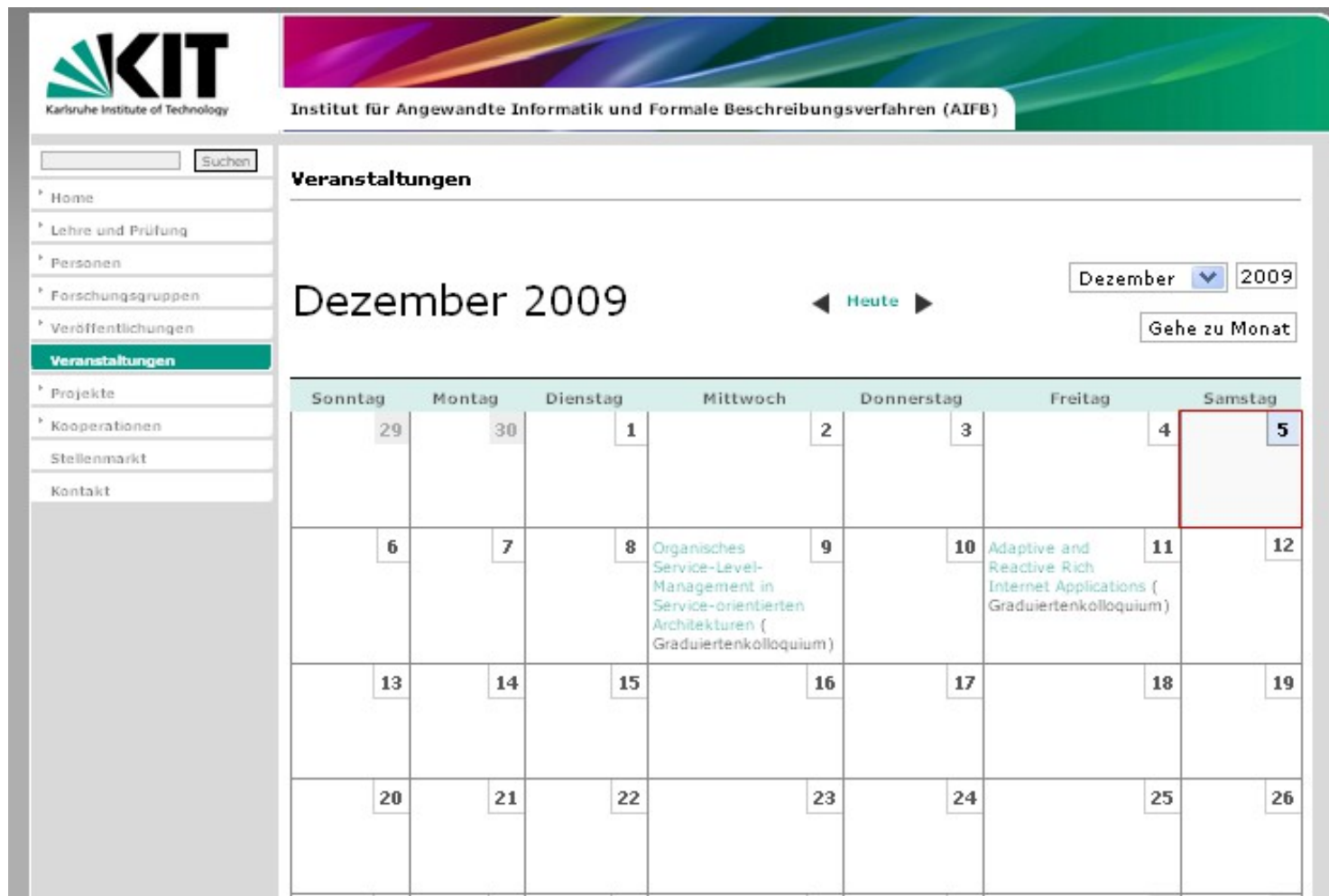
Additional display formats for Semantic MediaWiki:
calendar, timeline, graphs, math functions, additional
export formats, etc.

Semantic Result Formats: timeline format

The following timeline shows the next 50 events with articles in this wiki.



Semantic Result Formats: calendar format



The screenshot shows the website of the Karlsruhe Institute of Technology (KIT) and the Institute for Applied Informatics and Formal Description Methods (AIFB). The main content area displays a calendar for December 2009. The calendar is a grid with days of the week as columns and dates as rows. The date 5th of December is highlighted with a red border. Two events are listed: 'Organisches Service-Level-Management in Service-orientierten Architekturen (Graduiertenkolloquium)' on the 8th and 'Adaptive and Reactive Rich Internet Applications (Graduiertenkolloquium)' on the 10th. A sidebar on the left contains navigation links, and a search bar is at the top left.

KIT
Karlsruhe Institute of Technology

Institut für Angewandte Informatik und Formale Beschreibungsverfahren (AIFB)

Suchen

Veranstaltungen

Dezember 2009

Dezember 2009

Gehe zu Monat

Sonntag	Montag	Dienstag	Mittwoch	Donnerstag	Freitag	Samstag
29	30	1	2	3	4	5
6	7	8 Organisches Service-Level-Management in Service-orientierten Architekturen (Graduiertenkolloquium)	9	10 Adaptive and Reactive Rich Internet Applications (Graduiertenkolloquium)	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26

Home

Lehre und Prüfung

Personen

Forschungsgruppen

Veröffentlichungen

Veranstaltungen

Projekte

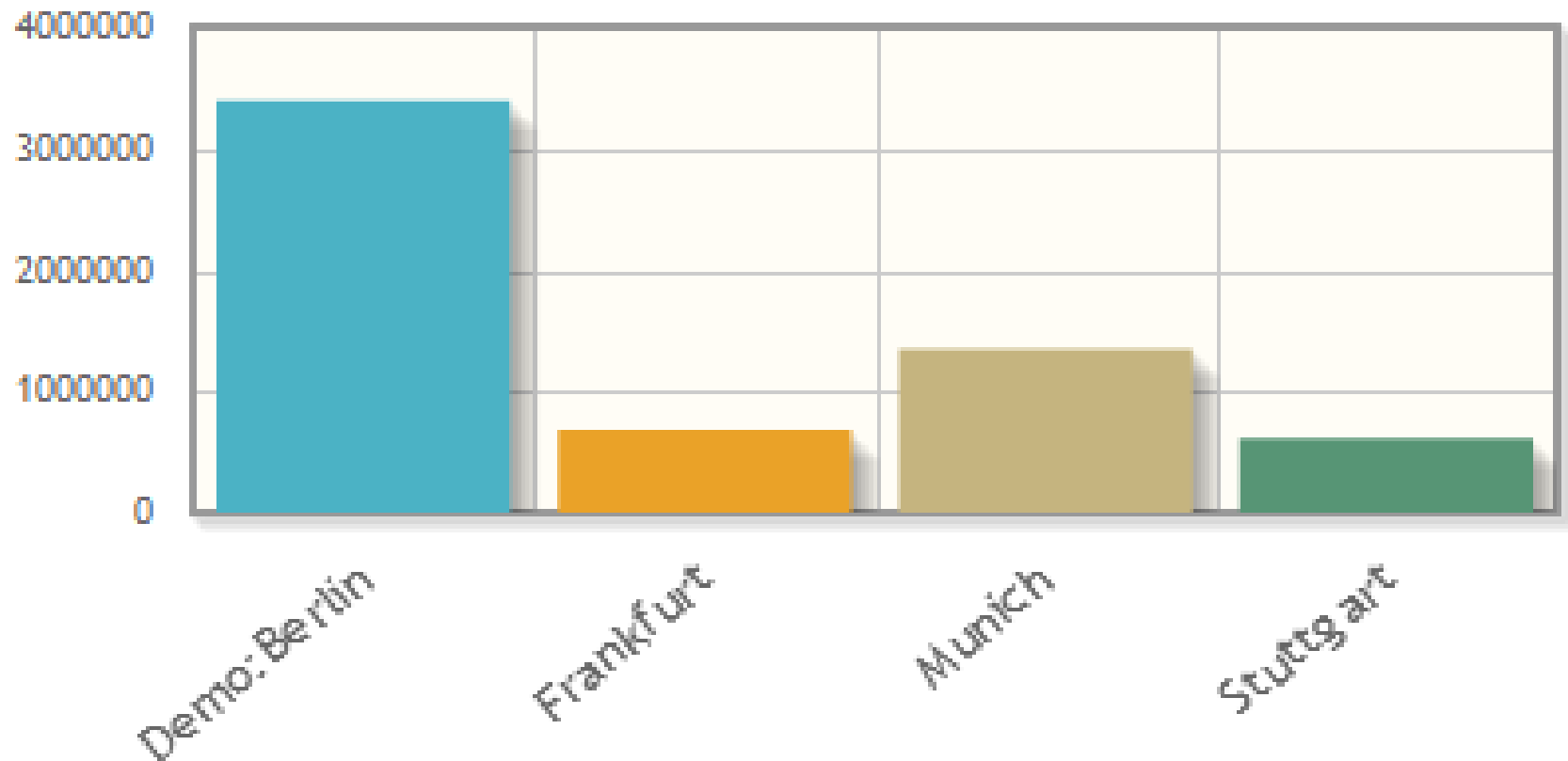
Kooperationen

Stellenmarkt

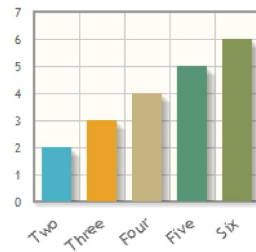
Kontakt

Semantic Result Formats:

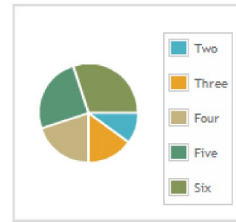
jqplotbar (jqPlot bar chart) format



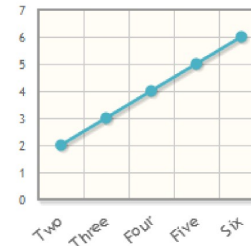
Various charting formats available in SRF (from my book)



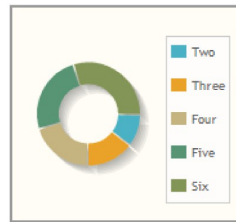
jqplotbar, or
jqplotchart with
"charttype=bar"



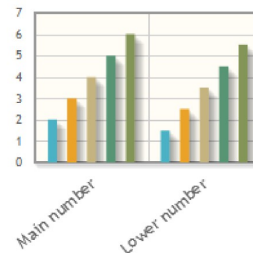
jqplotpie, or
jqplotchart with
"charttype=pie"



jqplotchart, with
"charttype=line"



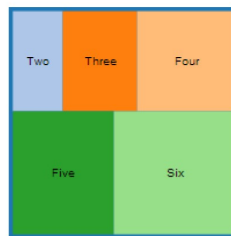
jqplotchart, with
"charttype=donut"



jqplotseries with
"charttype=bar"



jqplotseries, with
"charttype=scatter"



d3chart, with
"charttype=treemap"



d3chart, with
"charttype=bubble"



sparkline, with
charttype values of
"bar", "pie", "line" and
"discrete", respectively

Semantic Result Formats:

“filtered” format

Calendar View **List View** **Search**

Children and Young People 0-25 Calendar

Location
☐ Amesbury ☐ Bristol ☐ Calne ☐ Chippenham ☐ Codford ☐ Devizes ☐ Durrington ☒ London
☐ Malmesbury ☐ Marlborough ☐ Melksham ☒ Salisbury ☐ Shrewton ☐ Southampton
☐ Tidworth ☐ Tisbury ☒ Trowbridge ☐ Warminster

Children Activities
☐ Active and outdoors ☐ Days out ☐ Music ☒ Performing and arts ☒ Social and play
☐ Theatre and cinema

March 2013 Today ◀ ▶

Sun	Mon	Tue	Wed	Thu	Fri	Sat
24	25 Bridging Project ↗ Ages: 13-19 Trowbridge	26	27	28 Bridging Project ↗ Ages: 13-19 Salisbury	1	2 Keys drum club ↗ Ages: 1-25 Trowbridge Zone Club ↗ Ages: 16+ Salisbury
3	4 Bridging Project ↗ Ages: 13-19	5	6	7 Bridging Project ↗ Ages: 13-19	8	9

Maps & Semantic Maps

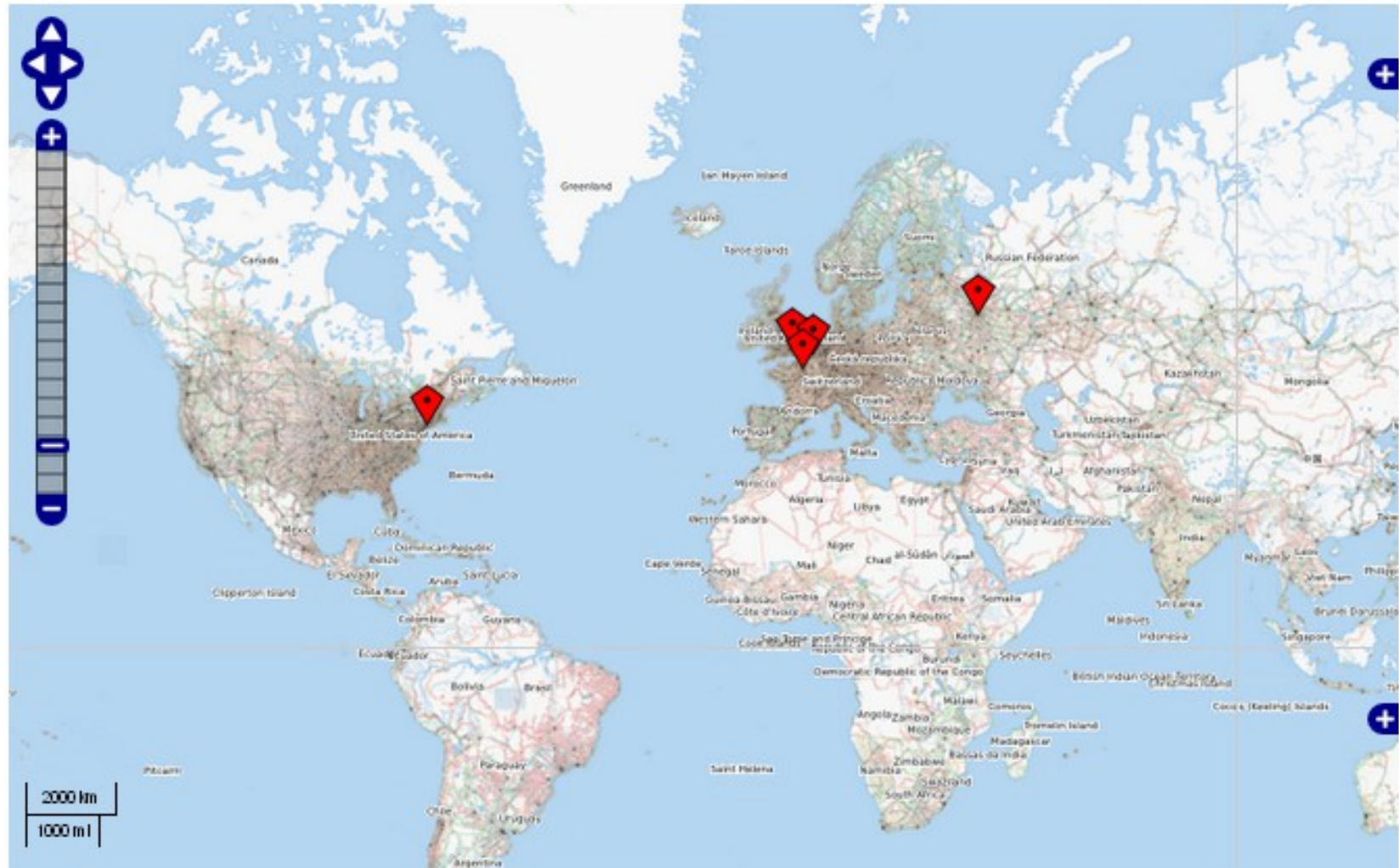
Maps: Non-semantic display of areas and points.

Semantic Maps: adds map-based query result formats, as well as form inputs. Also defines the “Geographic coordinate” property type.

Semantic Maps: Google Maps



Semantic Maps: OpenLayers



Semantic Compound Queries

Can display multiple Semantic MediaWiki queries at the same time.

In practice, this is mostly useful for maps and calendars – especially maps.

Semantic Compound Queries: map

Airports

The following map shows the Köppen climate classification for aerodromes across North America which are listed on SKYbrary:



Semantic Compound Queries: calendar

October 2012

◀ Today ▶

October 2012

Go to month

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	30	1	2	3	4	5
			Re-Elect the President			6
	7	8	9	10	11	12
For president: Mitt Romney					A Possibly Fatal Mistake	13
Obama for president: A second term for a serious man						
14	15	16	17	18	19	20
Barack Obama for president (Sacramento Bee)	Obama will do a better job		Time for another change	Ken Burns: Why I am voting for Barack Obama	Barack Obama for president (Denver Post)	Mitt Romney: new leadership for more economic growth
					Our pick for president: Romney	Mitt Romney for president
					Too Many Mitts: Obama has earned another term	Nevada needs a change now; elect Mitt Romney president
						Obama for president

Semantic Watchlist

Lets users “watch” a set of properties within a category, namespace or concept – if the value for one of those properties changes in any page within that group, they get emailed.

External Data

Can query the information from a web-based API, database or LDAP server, and display it (and, using SMW, store it) on a wiki page.

External Data on OpenCongress.org

From the Sunlight Foundation API			
Current Office: U.S. House of Representatives			
Title: Rep	First name: Nancy	Middle name:	Last name: Pelosi
Suffix:		Nickname:	
Party: D	State: CA	District: 08 District short: 8	Currently in office:
Gender: F			
Phone: 202-225-4965	Fax: 202-225-8259	Website: http://www.house.gov/pelosi/	Webform email: http://www.house.gov/pelosi/ Email address:
DC office: 235 Cannon House Office Building			
Bioguide ID: P000197	Votesmart ID: 26732	FEC ID: H8CA05035	Govtrack ID: 40
CRP ID: N00007360	Eventful ID: P0-001-000016548-5	Old Sunlight ID:	Twitter ID: nancypelosi
OpenCongress Wiki URL: http://www.opencongress.org/wiki/Nancy_Pelosi		YouTubeID: nancypelosi	Senate class:

Admin Links

Creates a page of helpful links for administrators, linked to from the top of each page.

Admin Links

Special page

Admin links

General

[Statistics](#) · [Version](#) · [Special pages](#) · [System messages](#) · [Edit sidebar](#) · [Edit CSS file](#) · [Edit name of main page](#)



[Approved pages](#) · [Replace text](#) · [Delete batch of pages](#)

Users

[User list](#) · [Create a user](#) · [User rights management](#)

Data structure

[Categories](#) · [Templates](#) · [Properties](#) · [Unused properties](#) · [Forms](#) · [Semantic statistics](#)

[Create a class](#) · [Create a property](#) · [Create a template](#) · [Create a form](#) · [Create a category](#) · [Admin functions for Semantic](#)
[Semantic MediaWiki documentation](#)  · [Semantic Forms documentation](#) 

Data display

[Inline queries help](#)  · [Semantic Result Formats documentation](#)  · [Maps documentation](#)  · [Semantic Maps documenta](#)

Browse and search

[All pages](#) · [Search](#)

[Browse wiki](#) · [Semantic search](#) · [Search by property](#)

[Browse data](#) · [Filters](#) · [Create a filter](#) · [Semantic Drilldown documentation](#) 

Approved Revs

Lets administrators mark a certain revision of a page as approved – people can edit the page, but their edits won't show up until a later revision is approved.

A “nicer” way of protecting pages.

See also: FlaggedRevs extension, which is more complex.

Data Transfer

Allows for importing and exporting structured data, using template calls to hold individual fields.

Most common usage: importing CSV files – each row in the CSV is saved to a separate page.

Header Tabs

Splits a page into tabs – can be used for both regular pages and forms.

Replace Text

Global text search-and-replace.

This is useful in a variety of contexts, but especially in modifying template field names and property values, because these have to be exact.

Edit Digital Camera: Sony Cyber-shot DSC-H70

The action you have requested is limited to users in the group: [Users](#).

[Return to Sony Cyber-shot DSC-H70.](#)

Digital Camera Infobox

Summary

Issues and Solutions

Image Gallery

Specifications

Files and Documentation

Export

Digital Camera Infobox

* sections are required.

*Product:

Digital Camera

*Manufacturer:

Sony

Series

Cyber-shot DSC-H

*Model Number:

H70

Also known as:

Format:

Compact

Image:

Sony5.jpg

Upload file (must be logged in to upload)

Megapixels:

16.2

MP

Zoom wide:

Widgets

Enables adding pre-set bits of HTML and Javascript to pages, to enable video players, audio players and many others.

Eliminates the need for many 10-line MediaWiki extensions.

Further links

Semantic Bundle:

https://mediawiki.org/wiki/Semantic_Bundle

SMW quick reference – a three-page “cheat sheet” covering many of the extensions described here:

http://semantic-mediawiki.org/wiki/SMW_quick_reference